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ABSTRACT

In April 1991, the Board of the National Council on Measurement in Education (NCME) voted to accept a grant from the Kellogg Foundation to: (1) measure teacher competency levels in the educational assessment of students; (2) identify a topic for the development of a training prototype; and (3) prepare a prototype training module on the selected topic. Efforts toward meeting these goals are summarized. Goal 1 was achieved through a national survey of teacher competencies in the area of educational assessment of students responded to by 555 teachers (48 percent response rate) and 286 administrators (51 percent response). On the basis of that survey and other relevant data, the topic "Interpreting and Communicating Test Results" was selected for development of a training prototype. Efforts toward Goal 3 are in progress. The training modules will consist of several components, designed to be delivered in either a 1-day or 2-day inservice program or through a series of 2-hour training sessions. The training modules will consist of a context-orienting vignette, course training materials, practice exercises, hands-on experiences, small group discussion questions, and homework problems. This prototype could serve as a model for future development efforts for training teachers in educational assessment. (Author/SLD)

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Teacher Assessment Literacy: Development of Training Modules

Report on an NCME-based Kellogg Foundation Grant

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Paper presented at the 1993 annual meeting of the National Council on Measurement in Education, April, 1993 Atlanta, GA

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Teacher Assessment Literacy: Development of Training Modules

Report on an NCME-based Kellogg Foundation Grant

At the April, 1991 Board of Directors meeting, the NCME Board voted to accept a grant from the Kellogg Foundation to (1) measure teacher competency levels in the educational assessment of students, (2) identify a topic for development of a training prototype, (3) prepare a prototype training module on the selected topic. The purpose of this paper is to summarize efforts toward meeting these goals. Specifically, goal one was achieved through a national survey of teacher competencies in the area of educational assessment of students. On the basis of the results of that assessment, and other relevant data, the topic "Interpreting and Communicating Test Results" was selected for development of a training prototype. Efforts toward goal three are in progress. The training modules will consist of several components, designed to be delivered in either a one or two day inservice program or through a series of 2 hour training sessions. The training modules will consist of a context-orienting vignette, course training materials, practice exercises, hands-on experiences, small group discussion questions and homework problems. This prototype could serve as a model for future development efforts for training teachers in educational assessment.

Teacher Assessment Literacy: Development of Training Modules

Report on an NCME-based Kellogg Foundation Grant

At the April, 1991 Board of Directors meeting, the NCME Board voted to accept a grant from the Kellogg Foundation to (1) measure teachers' competency level in the assessment areas addressed in the Standards for Teacher Competencies in the Educational Assessment of Students (NEA, NCME, AFT, 1990); (2) identify a target assessment area based on the results of measuring teachers' competencies; and (3) develop a training prototype. Barbara S. Plake and James C. Impara serve as co-principal investigators on the project. A National Advisory Committee was formed consisting of representatives from the American Federation of Teachers (Marsha Berger, recently replaced by Beth Bader), the National Education Association (Jeffrey Schneider), and NCME (Tony Nitko and Bill Schafer).

The purpose of this paper is to summarize efforts toward meeting these goals.

Goal 1: Measure teacher competency levels in the educational assessment of students.

An instrument was developed to measure the seven competency areas articulated in the Standards. The instrument was administered to a national sample of teachers and administrators in fall, 1991. The sampling plan involved identification of 6 school districts per state, selected to represent urban and rural school district. Through contact with state assessment directors, direct contact information was obtained for the district testing

coordinator (or equivalent) in each sampled school districts. These district testing coordinators were then requested to cooperate by randomly sampling 12 teachers from across elementary, middle, and secondary levels and 6 administrators from elementary and secondary school settings. All total, 98 school systems from 45 states participated.

Results. A total of 555 (48%) teachers and 286 (51%) administrators returned their test materials. The distribution of respondents was widespread across the U.S., representing large and small school districts in rural, suburban and urban areas. Overall, teachers averaged about 23 out of 35 items correct. Highest performance was on the subscale measuring teacher knowledge in the areas of administering, scoring and interpreting test results; poorest performance was on items measuring the teachers' knowledge about communicating test results. Teachers who had some measurement training scored significantly higher than those who had not; teachers expressing comfort in interpreting standardized tests scored significantly higher on the test than did teachers who expressed discomfort.

In addition to items directly measuring the Standards, teachers' backgrounds and interests in becoming more knowledgeable about assessment information were asked. One question of relevance to the training endeavor asked teachers for their preference for the mode of training; the clear preference was for inservice delivery of assessment training information. More information on the results of this national assessment of teacher competencies in educational assessment of students can be found in Plake, Impara, and Fager (in press).

Goal 2: Identify a topic for developing a training prototype

Based on the results of the national survey and other pertinent information, the content area of "Interpreting and Communicating test results" was identified as the focus for the development of prototype materials. According to the Standards for Teacher Competence in the Educational Assessment of Students, the following conception and applications skills are necessary in order for teachers to meet this standard:

1. Understand and be able to give appropriate explanations of how the interpretation of student assessments must be moderated by the student's socio-economic, cultural, language, and other background factors.

2. Be able to explain that assessment results do not imply that such background factors limit a student's ultimate educational development.

3. Communicate to students and to their parents or guardians how teachers may assess the student's education progress.

4. Understand and be able to explain the importance of taking measurement errors into account when using assessments to make decisions about individual students.

5. Be able to explain the limitations of different informal and formal assessment methods.

6. Be able to explain printed reports of the results of pupil assessments at the classroom, school district, state, and national levels.

Goal 3: Develop a training prototype for the selected topic area

The training modules will consist of several components, designed to be delivered in either a one or two day inservice program or through a series of 2 hour training sessions. The training modules will consist of a context-orienting vignette (problem context), instruction on the topic, practice exercises, hands-on experiences, small group discussion questions and homework problems. This prototype will serve as a model for future development efforts for training teachers in other areas related to assessing students.

Problem Context. A parent-teacher conference was selected as the problem context for the "Interpreting and Communicating Test Results" training module. It will be presented in the form of a written vignette, instead of other forms of media presentation, such as video or audio tape. The reason for this decision was to make the training modules as portable as possible; further development of media based problem context presentation could occur under another grant effort or by independent developers The vignette will consist of three major segments:

1. Introduction: purposes of the training module described briefly; the focus of the vignette is on interpreting and communicating results of student academic achievement assessments.

2. Simulated parent - teacher conference: parent queries a teacher about the meaning and interpretation of achievement information, including formal and informal assessment results.

3. Conclusion: key features of the parent - teacher conference identified; introduction to the instructional component is provided.

Course Training Material

The focus of the training material will be on "sensitive" interpretation of test results. The course content will emphasize that there are multiple sources of student achievement information, involving both informal and formal assessments. Further, it will be noted that parent teacher conferences provide the opportunity for parents to be presented with both formative and summative evaluations of student achievement. Such conferences also provide a context for the teacher gather information about possible factors that might influence the student's achievements. While the content of the training will focus on fundamental precepts of assessment, they will be presented less formal ways. For example, the concepts of validity and reliability will be discussed, but not in a formal academic sense. Instead, these constructs will be intertwined in the discussion of interpreting test results, in particular in the segment on understanding consistencies and inconsistencies in achievement information. Also highlighted in an application mode will be concepts of the utility of separate assessment component results and possible sources for test score variance

Specific components of the training course content include:

1. Definitions of different kinds of achievement outcomes
2. Identification of different purposes of assessments
3. Determination of summative representation of student performance (e.g., methods of assigning grades)

4. Specification of relative strengths and weaknesses of students across subject areas.
5. Specification of relative strengths and weaknesses of students as compared to other students.
6. Discussion of relative strengths and weaknesses of students in light of other information (i.e., student background, ability, motivation).
7. Discussion of ways in which parent could be helpful in student's school achievement.
8. Explanation of achievement in light of inconsistent performance indicators.

Status of Development of the Training Modules Prototype

The parent teacher conference vignette is under development. The final training module prototype will consist of the parent-teacher vignette, the course training instructional objectives, a set of practice exercises, hands-on experiences, small group discussion questions and developed model responses, and homework problems.

Future of the Training Module Project

The Kellogg based NCME grant provided resources for developing only one prototype for training teachers in the area of educational assessment of students. It is hoped that other opportunities will become available to further the development of more training modules. NCME has been communicating with NEA, AFT and some of the Regional Laboratories about possible collaboration of continued project efforts. In the meantime, this prototype can serve as an illustration of development efforts toward enhancing the assessment literary of teachers.

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